



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,756	11/12/2003	John T. Matthews	2003	7388
24264	7590	09/24/2007	EXAMINER	
MARTIN & HENSON, P.C. 9250 W 5TH AVENUE SUITE 200 LAKEWOOD, CO 80226			AYRES, TIMOTHY MICHAEL	
		ART UNIT		PAPER NUMBER
		3637		
			MAIL DATE	DELIVERY MODE
			09/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



UNITED STATES PATENT AND TRADEMARK OFFICE

---

Commissioner for Patents  
United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

**MAILED**

Application Number: 10/712,756  
Filing Date: November 12, 2003  
Appellant(s): MATTHEWS ET AL.

**SEP 24 2007**

**GROUP 3600**

---

John Wray Carpenter  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 6/12/2007 and 8/16/2007 appealing from the Office action mailed 5/10/2006.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in supplemental appeal brief filed 8/16/07 is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

5,244,001	Lynch	9-1993
2,723,673	Call	11-1950
5,701,923	Losi, Jr. et al.	12-1997
5,884,647	Dwek	3-1999
2004/0084074	Chiu et al.	5-2004

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

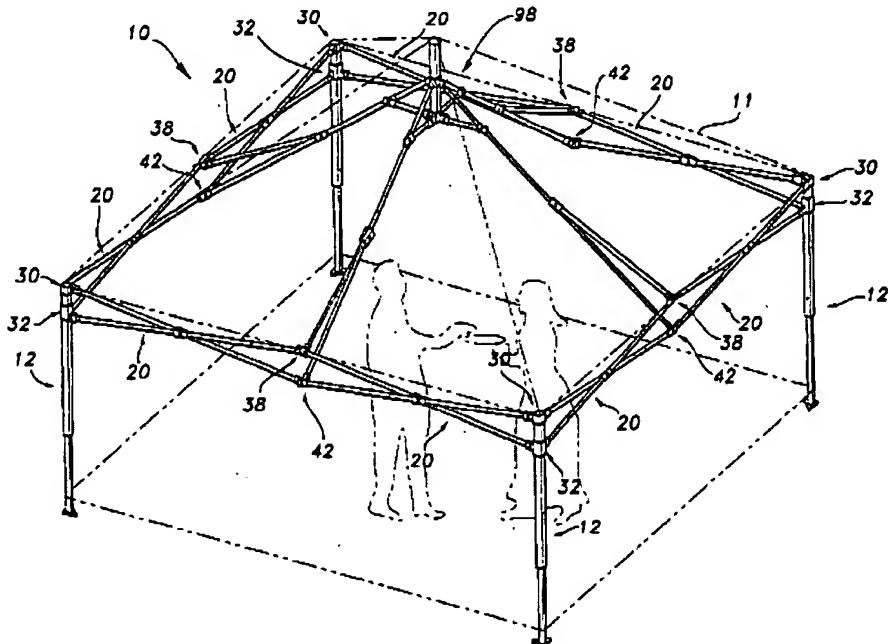
***Claim Rejections - 35 USC § 102***

This rejection is relevant to argument section B.

Claims 22, 24-26, 30, 35, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication 2004/0084074 to Chiu. Chiu '074 discloses an expandable framework (10) adapted to move between an expanded state for supporting a canopy covering (11) above a support surface as seen in figure 1 and a collapsed state for storage as seen in figure 9. The expandable framework has a plurality of upright support members (12) each having a bottom end portion (14) positionable on the support surface and a top end portion (16) opposite the bottom end (14). The support members (12) being oriented alongside one another in the collapsed state and spaced apart from one another when in the expanded state. Upper mounts (30) and lower mounts (32) are disposed on each corner support member (12), at least some of the upper (30) and lower (32) mounts including a lobe (54) having outwardly facing,

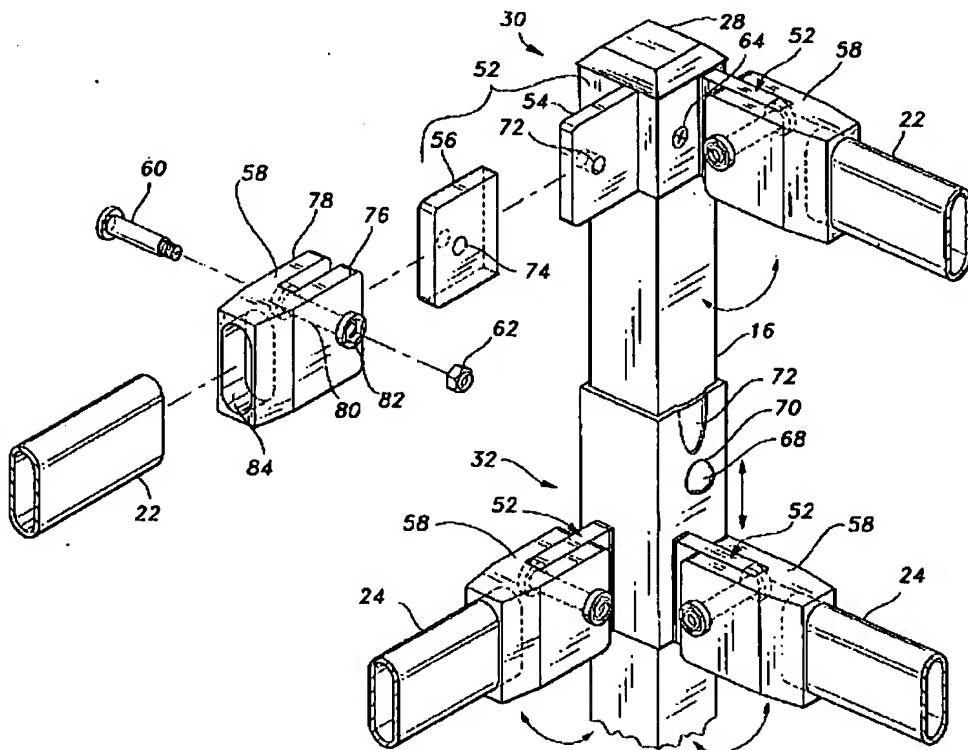
Art Unit: 3637

spaced-apart and substantially parallel sidewalls as best seen in figure 3. A plurality of edge scissor assemblies (20,20) with there being an edge scissor assembly (20,20) interconnecting peripherally adjacent ones of the corner support member (12), each edge scissor assembly (20) including a pair of outer upper ends (24) and a pair of outer lower ends (22). The edge scissor assemblies (20,20) operative to open and close whereby the expandable framework may move between the expanded and collapsed states, at least some of the outer upper ends (24) and the outer lower ends (22) provided with a socket fitting (58) including spaced apart portions (78,76) that are spaced apart from one another to define a channel opening there between that is adapted to mateably engage a respective the lobe in close-fitted engagement, and with at least one of the portions having a substantially flat face thereby to form sliding contact surface with the respective the lobe (54). A fastener (60) to secure each lobe (54) for pivotal movement in the respective the socket fitting (58).



Chiu '074 Figure 1

The socket fittings (58) each include first (76) and second (78) arm portions extending for a length and having substantially parallel opposed face portions defining the channel opening, the first (76) and second (78) arm portion adapted to receive the respective the lobe (54) there between with each of the face portions forming sliding contact surfaces with the respective the lobe (54).



Chiu Figure 3

A pair of upper (30) and lower (32) mounts are disposed on each of the upright support members (12), one of the pair being a stationary mount (30) and another of the

Art Unit: 3637

pair being a slide mount (32) slideably secured to the upright support member (12) and movable there along between locations proximate to and remote from the stationary mount (30) when the respective the edge scissor assembly (20,20) opens and closes.

The upper mount (30) in each pair is the stationary mount (30).

A latch element (68) associated with each of the upright support members (12), the latch (68) operative to latch the respective slide mount (32) in the location proximate to the respective stationary mount (30).

A roof support assembly (98) supported above the support surface by the upright support members (12) when in the expanded state, the roof support assembly operative to support the canopy covering (11).

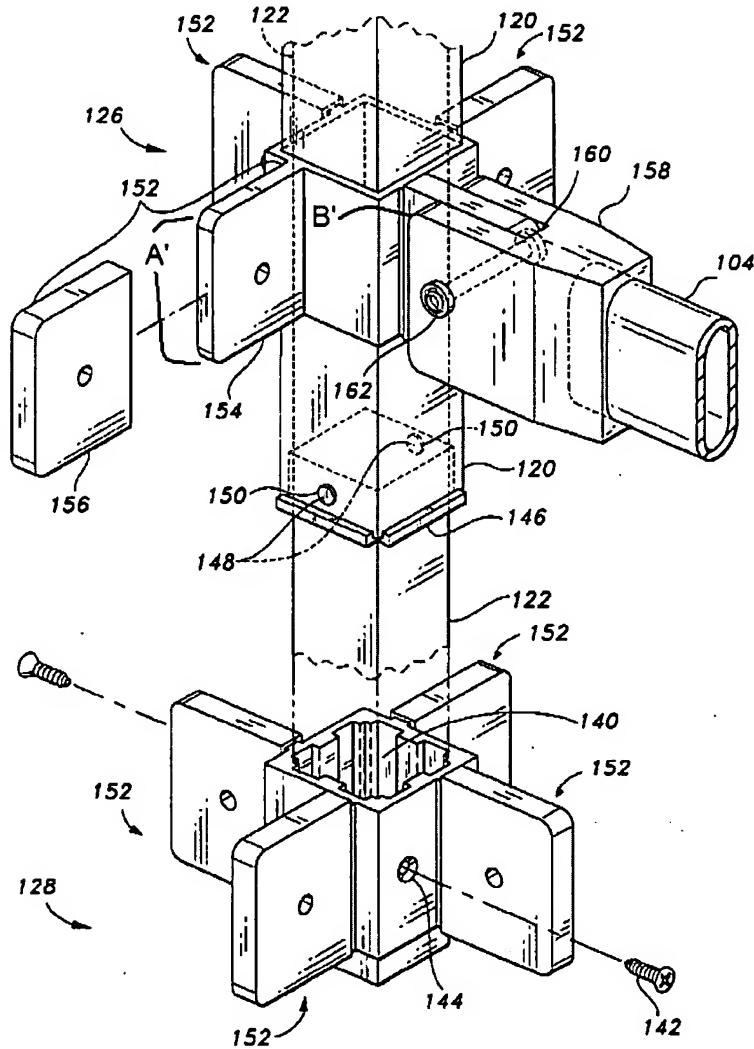
The roof support assembly (98) includes a plurality of roof support members (104) pivotally connected to one another at proximate ends (126) thereof to form an apex (100).

Regarding claim 30, the edge scissor assembly (20,20) includes a pair of scissor units (20) connected at upper (38) and lower (42) inner ends thereof in end-to-end relation.

Regarding claim 35, the edge scissor assemblies (20,20) are constructed by at least one scissor unit (20), which includes a pair of scissor bars (22,24) pivotally connected to one another. The scissor bars (24,26) are tubular member having a cross-section selected from a group consisting of ovals, circles, squares and rectangles. In Chiu '074 an oval cross-section is disclosed as best seen in fig. 3, 7, and 8.

Regarding claim 36, At least one side panel is part of the canopy covering (11) is adapted to be supported by the framework (10) as shown and dot-dash lines in figure 1.

As best seen in figure 3 and marked up figure 8 below, the arm portions (78,76) and the lobes (154,54) have rounded corners (A', B') thus giving them rounded ends.



Chiu Figure 8

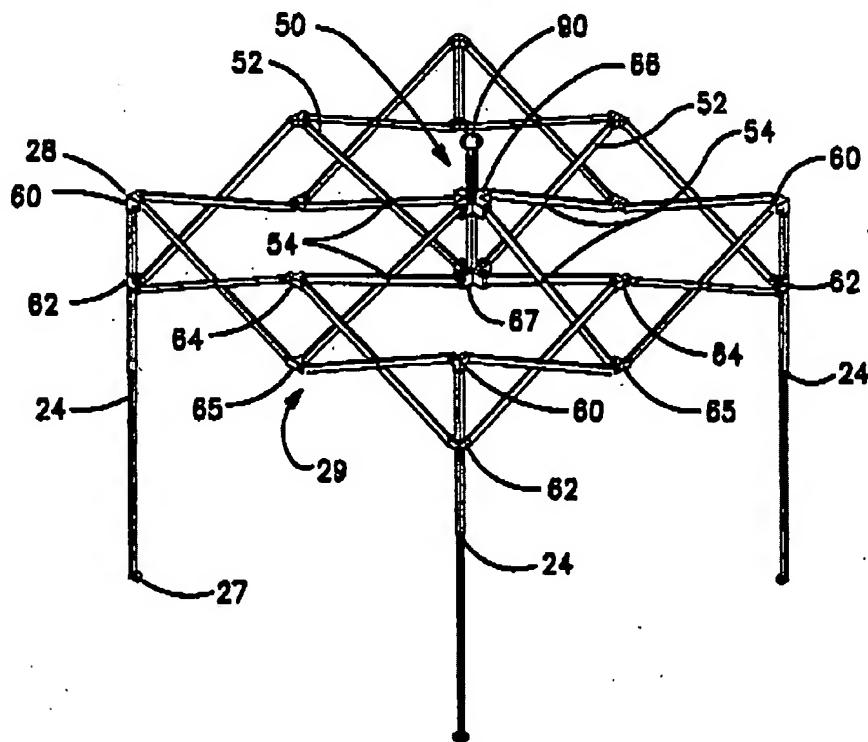
***Claim Rejections - 35 USC § 103***

This rejection is relevant to argument sections A and C.

Claims 1-9, 12-14, 17, 18, 22, 24-31, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,244,001 to Lynch in view of U.S. Patent 2,723,673 to Call and US Patent 5,701,923 to Losi. Lynch '001 discloses three embodiments corresponding to figures 2a, 2b, and 22a that include an expandable framework (11,21) adapted to move between an expanded state for supporting a canopy covering (12,22) above a support surface as seen in figure 1 and 2 and a collapsed state for storage as seen in figure 17. The expandable framework has a plurality of upright support members (14,24,430) each having a bottom end portion (27) positionable on the support surface and a top end portion (18,28) opposite the bottom end (27). The support members (14,24) being oriented alongside one another in the collapsed state and spaced apart from one another when in the expanded state. Upper mounts (60,420) and lower mounts (62,422) are disposed on each corner support member (14,24,430). A plurality of edge scissor assemblies (19,29) with there being an edge scissor assembly (19,29) interconnecting peripherally adjacent ones of the corner support member (14,24,430), each edge scissor assembly (19,29) including a pair of outer upper ends (44,44') and a pair of outer lower ends (45,45'). The edge scissor assemblies (19,29) operative to open and close whereby the expandable framework may move between the expanded and collapsed states. Lynch '001 discloses the mounts (60,62) with a pair arm portions (116,118) that create a channel opening (120). The two sides (121,122) have a substantially flat face to receive the scissor bars

Art Unit: 3637

(41,42). The arm portions (116, 118) and the channel opening create a socket type fitting where the scissor bars (41, 42) fit between the two arm portions (116,118). A fastener (140) secures the ends of the scissor bars (41,42) to the arm portions (116,118) of the mounts for pivotal movement. The end of the scissor bars are rounded.



Lynch '001 Figure 2b

Regarding claims 6 and 22, a roof support assembly (50,400) supported above the support surface by the upright support members (24,430) when in the expanded state, the roof support assembly operative to support the canopy covering (22).

Regarding claims 3 and 24, a pair of upper (60,420) and lower (62,422) mounts are disposed on each of the upright support members (14,24,430), one of the pair being

a stationary mount (60,420) and another of the pair being a slide mount (62,422) slideably secured to the upright support member (14,24,430) and movable therealong between locations proximate to and remote from the stationary mount (60,420) when the respective the edge scissor assembly (19,29) opens and closes.

Regarding claims 4 and 25, the upper mount (60,420) in each pair is the stationary mount (62,422).

Regarding claims 5 and 26, a latch element (13) associated with each of the upright support members (14,24,430), the latch (13) operative to latch the respective slide mount (62,422) in the location proximate to the respective stationary mount (60,420).

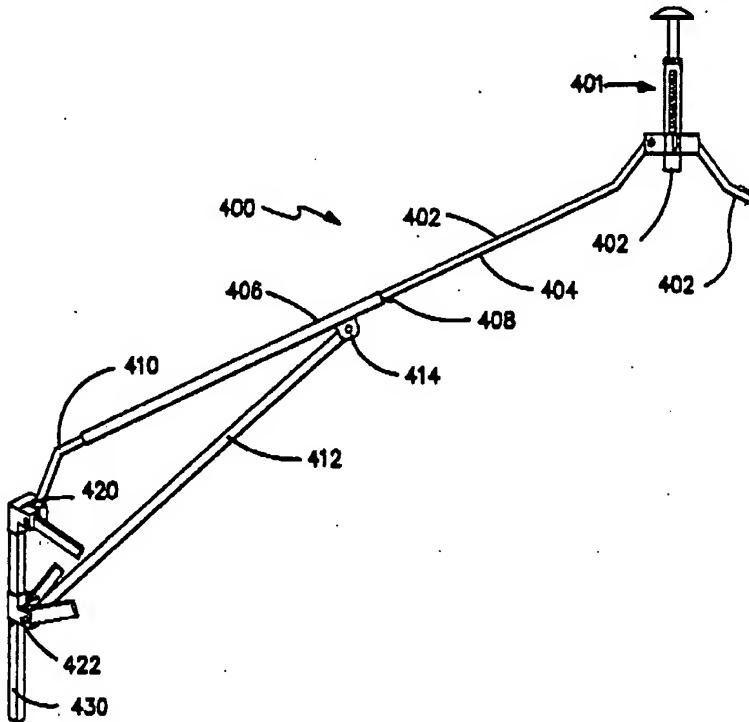
Regarding claims 7 and 27, The roof support assembly (400) includes a plurality of roof support members (402) pivotally connected to one another at proximate ends thereof to form an apex (401) and extending generally radially outwardly from one another when in the expanded state, each roof support member pivotally connected at a distal end (410) thereof to one of the mounts (420,422) on a respective upright support member (430).

Regarding claims 8 and 28, the roof support members (402) includes a pair of extendable sections (404,406) movable between a retracted state when the framework structure is in the collapsed state and an extended state when the framework structure is in the expanded state.

Art Unit: 3637

Regarding claim 9, the roof support member includes a roof latch element (408) associated therewith operative to retain the extendable sections thereof in the extended state.

Regarding claim 13, the roof support member (402) includes a cantilever section (412) pivotally connected at a first cantilever end (414) to the roof support member and at a second cantilever end to the slide mount (422) on the respective upright support member (430).



Lynch '001 Figure 22a

Regarding claims 14 and 29, in the embodiment in figure 2b, the roof support assembly (50) includes at least one central scissor assembly (52).

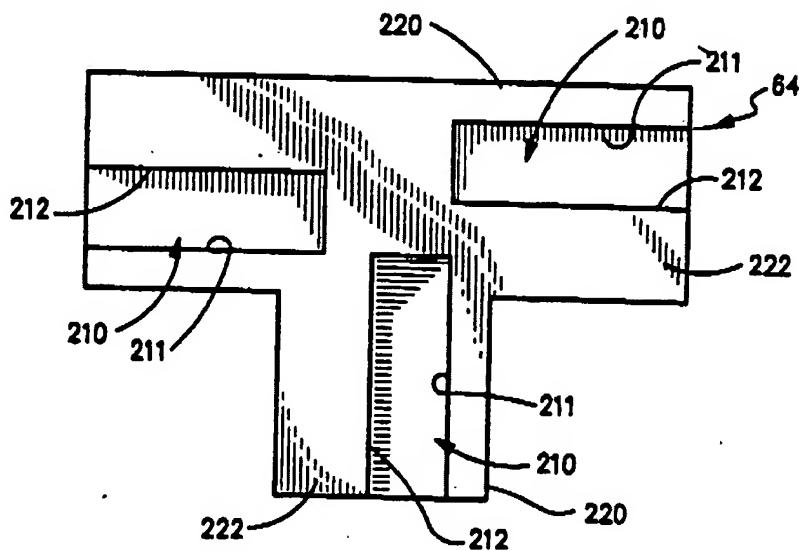
Art Unit: 3637

Regarding claims 15 and 30, the edge scissor assembly (29) includes a pair of scissor units (40) connected at upper (48) and lower (49) inner ends thereof in end-to-end relation as best shown in figure 4b.

Regarding claim 17, the edge scissor assemblies (29) are constructed by at least one scissor unit (40), which includes a pair of scissor bars (41,42) pivotally connected to one another.

Regarding claim 18, the scissor bars (41,42) are tubular member having a cross-section selected from a group consisting of ovals, circles, squares and rectangles. In lynch '001 the bars (41,42) are of a rectangular cross section as seen in figure 5.

Lynch '001 teaches center fittings (64,65) that connect the ends of the scissor units together. The channels (210) that receive the ends of the scissor bars are offset as seen in figure 13 below.

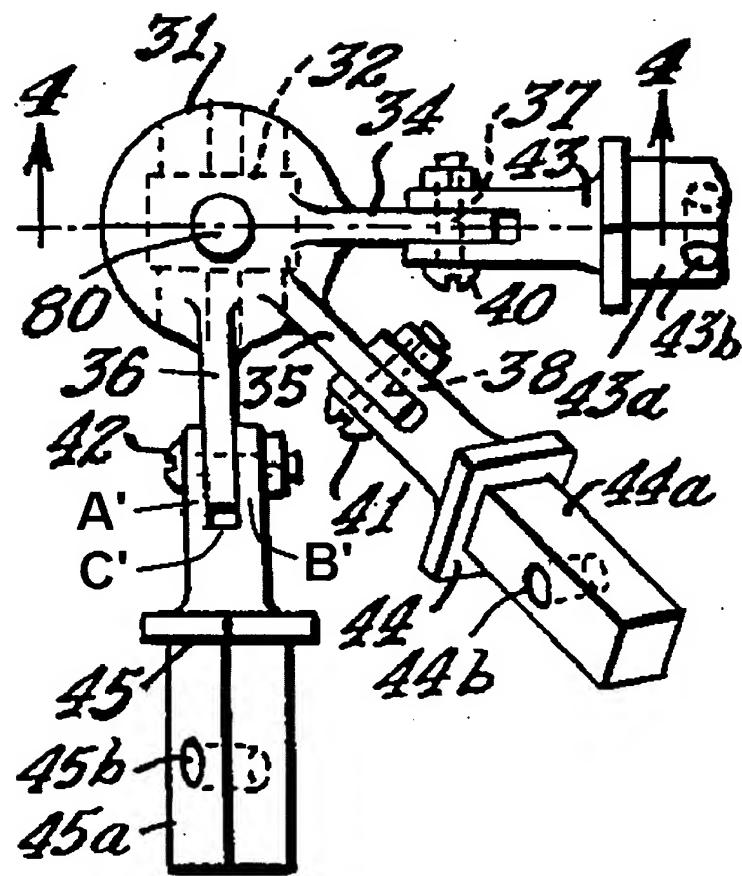


Lynch '001 Figure 13

Art Unit: 3637

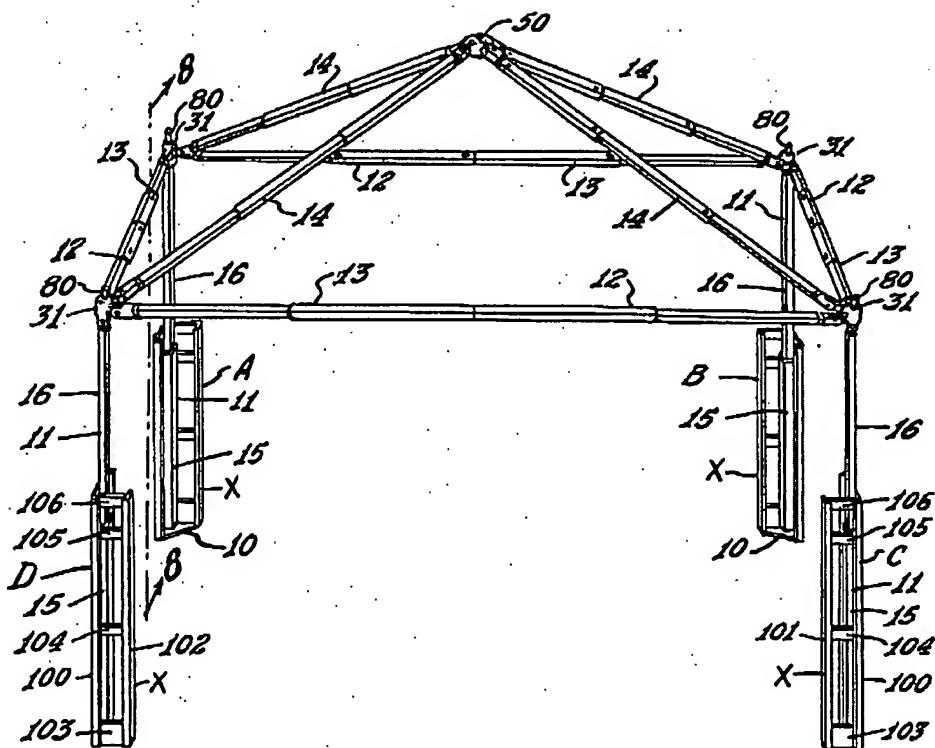
Lynch '001 does disclose a socket fitting on the mounts, but does not expressly disclose the reverse of a lobe on the mounts with a corresponding socket on the scissor bars. Lynch '001 does not also expressly discloses the roof support members being pivotally secured to an apex cap.

Call '673 teaches a framework to receive a canopy. Mounts (31) are attached to upright support members (16). The mounts (31) include three lobes (34,35,36) corresponding to three sockets (43,44,45) that connect to the support members (12,13,14). Using socket (45) and lobe (36) as an example for all, the socket fitting (45) includes a first (A') and second (B') arm portions extending for a length and having substantially parallel opposed face portions defining the channel opening (C'), the first (A') and second (B') arm portion adapted to receive the respective the lobe (36) there between with each of the face portions forming sliding contact surfaces with the respective the lobe (36). The ends of the lobes and arm portions of the socket are rounded.



Call '673 Figure 3

The roof support members (14) are pivotally secured to an apex cap (50).

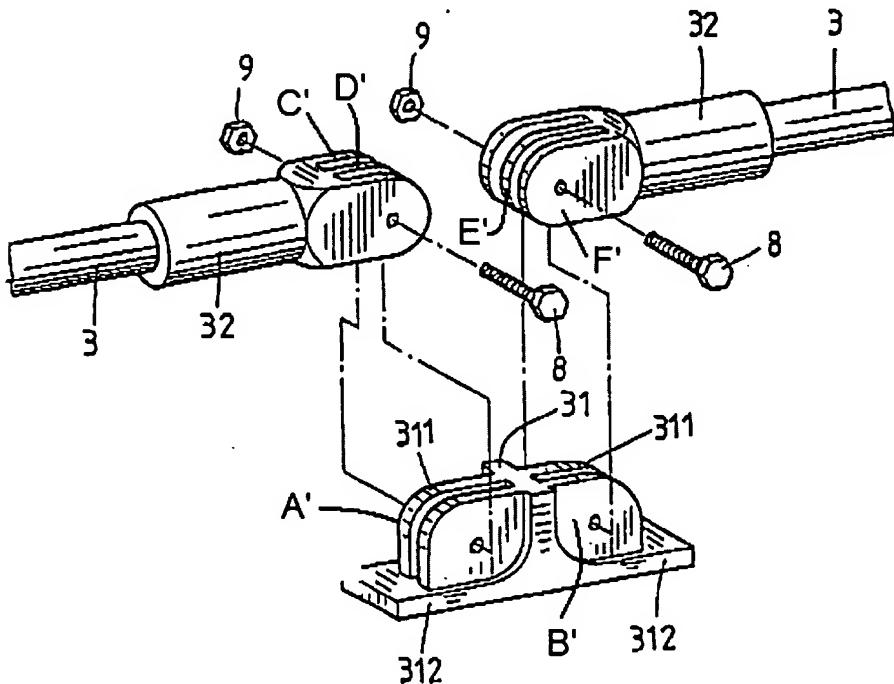


Call '673 Figure 1

At the time of the invention it would have been obvious for a person of ordinary skill in the art to take the framework of Lynch and use the teaching of Call to reverse fittings and put the lobes on the mounts and a socket fitting on the scissor bars to make the structure more stable. Also, it would have been obvious to add the apex of Call to make the structure lighter since the apex structure would be one piece.

Lynch '001 in view of Call does not expressly disclose A female cavity in the socket to receive the ends of the scissor bars and center fittings in between scissor units that have longitudinal offset lobes to be received in channel openings of sockets on the end of the scissor bars.

Losi teaches an expandable frame work that has a joint with a center fitting (31) with Lobes (A', B') that are longitudinal offset from each other as seen in marked up figure 7 below. Spaced apart arm portions (C', D', E', F') on sockets (32) create channels to receive Lobes (A', B'). The sockets (32) have a female cavity to receive the bars (3). At the time of the invention it would have been obvious to modify the center fittings of Lynch '001 in view of Call by using the lobe and socket structure of Losi to provide less laterally movement due to the increased surface area of the connections.



Losi '923 Figure 7

This rejection is relevant to argument section D.

Claims 22, 24-31, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,244,001 to Lynch in view of U.S. Patent 2,723,673 to

Call and U.S. Patent 5,884,647 to Dwek. Lynch '001 discloses three embodiments corresponding to figures 2a, 2b, and 22a that include an expandable framework (11,21) adapted to move between an expanded state for supporting a canopy covering (12,22) above a support surface as seen in figure 1 and 2 and a collapsed state for storage as seen in figure 17. The expandable framework has a plurality of upright support members (14,24,430) each having a bottom end portion (27) positionable on the support surface and a top end portion (18,28) opposite the bottom end (27). The support members (14,24) being oriented alongside one another in the collapsed state and spaced apart from one another when in the expanded state. Upper mounts (60,420) and lower mounts (62,422) are disposed on each corner support member (14,24,430). A plurality of edge scissor assemblies (19,29) with there being an edge scissor assembly (19,29) interconnecting peripherally adjacent ones of the corner support member (14,24,430), each edge scissor assembly (19,29) including a pair of outer upper ends (44,44') and a pair of outer lower ends (45,45'). The edge scissor assemblies (19,29) operative to open and close whereby the expandable framework may move between the expanded and collapsed states. Lynch '001 discloses the mounts (60,62) with a pair arm portions (116,118) that create a channel opening (120). The two sides (121,122) have a substantially flat face to receive the scissor bars (41,42). The arm portions (116, 118) and the channel opening create a socket type fitting where the scissor bars (41, 42) fit between the two arm portions (116,118). A fastener (140) secures the ends of the scissor bars (41,42) to the arm portions

(116,118) of the mounts for pivotal movement. The ends of the scissor bars are rounded.

Regarding claim 22, a roof support assembly (50,400) supported above the support surface by the upright support members (24,430) when in the expanded state, the roof support assembly operative to support the canopy covering (22).

Regarding claims 24, a pair of upper (60,420) and lower (62,422) mounts are disposed on each of the upright support members (14,24,430), one of the pair being a stationary mount (60,420) and another of the pair being a slide mount (62,422) slideably secured to the upright support member (14,24,430) and movable there along between locations proximate to and remote from the stationary mount (60,420) when the respective the edge scissor assembly (19,29) opens and closes.

Regarding claim 25, the upper mount (60,420) in each pair is the stationary mount (62,422).

Regarding claim 26, a latch element (13) associated with each of the upright support members (14,24,430), the latch (13) operative to latch the respective slide mount (62,422) in the location proximate to the respective stationary mount (60,420).

Regarding claim 27, The roof support assembly (400) includes a plurality of roof support members (402) pivotally connected to one another at proximate ends thereof to form an apex (401) and extending generally radially outwardly from one another when in the expanded state, each roof support member pivotally connected at a distal end (410) thereof to one of the mounts (420,422) on a respective upright support member (430).

Regarding claim 28, the roof support members (402) includes a pair of extendable sections (404,406) movable between a retracted state when the framework structure is in the collapsed state and an extended state when the framework structure is in the expanded state.

Regarding claim 9, the roof support member includes a roof latch element (408) associated therewith operative to retain the extendable sections thereof in the extended state.

Regarding claim 13, the roof support member (402) includes a cantilever section (412) pivotally connected at a first cantilever end (414) to the roof support member and at a second cantilever end to the slide mount (422) on the respective upright support member (430).

Regarding claim 29, in the embodiment in figure 2b, the roof support assembly (50) includes at least one central scissor assembly (52).

Regarding claim 30, the edge scissor assembly (29) includes a pair of scissor units (40) connected at upper (48) and lower (49) inner ends thereof in end-to-end relation as best shown in figure 4b.

Regarding claim 17, the edge scissor assemblies (29) are constructed by at least one scissor unit (40), which includes a pair of scissor bars (41,42) pivotally connected to one another.

Regarding claim 18, the scissor bars (41,42) are tubular member having a cross-section selected from a group consisting of ovals, circles, squares and rectangles. In lynch '001 the bars (41,42) are of a rectangular cross section as seen in figure 5.

Art Unit: 3637

Lynch '001 does disclose a socket fitting on the mounts, but does not expressly disclose the reverse of a lobe on the mounts with a corresponding socket on the scissor bars. Lynch '001 does not also expressly disclose the roof support members being pivotally secured to an apex cap.

Call '673 discloses a framework to receive a canopy. Mounts (31) are attached to upright support members (16). The mounts (31) include three lobes (34,35,36) corresponding to three sockets (43,44,45) that connect to the support members (12,13,14). Using socket (45) and lobe (36) as an example for all, the socket fitting (45) includes a first (A') and second (B') arm portions extending for a length and having substantially parallel opposed face portions defining the channel opening (C'), the first (A') and second (B') arm portion adapted to receive the respective the lobe (36) there between with each of the face portions forming sliding contact surfaces with the respective the lobe (36). The edges of the lobes and arm portions are rounded.

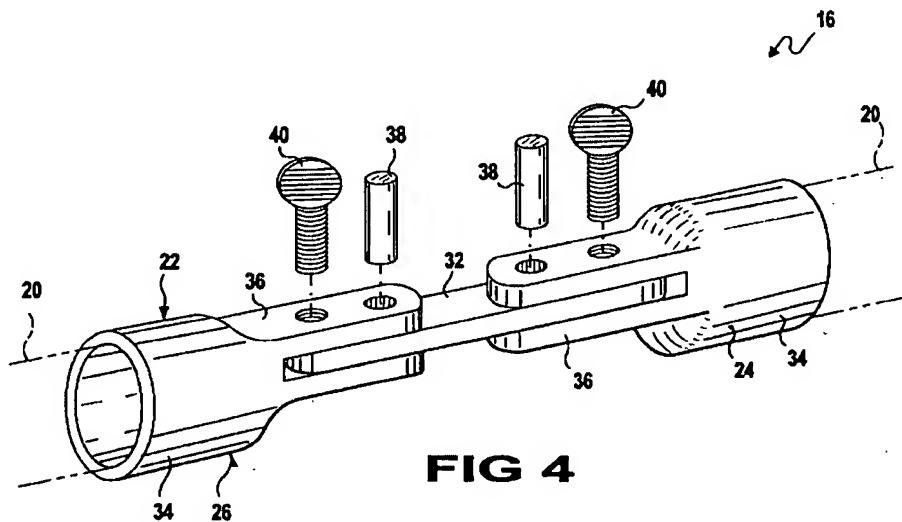
The roof support members (14) are pivotally secured to an apex cap (50).

At the time of the invention it would have been obvious for a person of ordinary skill in the art to take the framework of Lynch and use the teaching of Call to reverse fittings and put the lobes on the mounts and a socket fitting on the scissor bars to make the structure more stable. Also, it would have been obvious to add the apex of Call to make the structure lighter since the apex structure would be one piece.

Lynch '001 in view of Call does not disclose expressly a center fitting interconnecting with sockets on the corresponding scissor bars, a female cavity for receiving an end of the scissor bar, the bars as ovals, and a side panel to be supported

Art Unit: 3637

by the framework. Dwek '647 teaches a collapsible framework (16) with tubular bars (20) in shape of an oval. Attached on the end of the bars is a socket fitting (34) which is connected to a center fitting (32). The socket fitting (34) has a female cavity to receive the end of the bars (20) as seen in figure 4. The sockets (34) have arms (36) that define a channel in the space between them that is to receive the center fitting (32). A side panel (70) is attached to the frame work (16). At the time of the invention it would have been obvious for a person of ordinary skill in the art to take the frame work of Lynch in view of Call and use the center fitting, sockets with female cavities, side wall, and tubular bars of Dwek since they make the structure simple and easy to use. The edges of the lobes and arm portions are rounded.



Dwek Figure 4

### (10) Response to Argument

A. The Examiner has failed to established a *prima facie* case of obviousness under 35U.S.C § 103(a) in rejecting claim 1 as being unpatentable over Lynch '001 in view of Call '673 and Losi '923.

The appellant argues on page 11 of the brief "there is no reasonable, non-hindsight motivation to combine the center fittings of Lynch '001 with the analogous structures of Call '673, which are the telescoping section 12b and 13d (col 4, lines 25-47)."

The center fittings of Lynch '001 are not being combined or modified with any structure taught in Call '673, the center fittings of Lynch '001 are being modified/replaced with the fittings as taught in Losi '923. As seen in figure 3 of Call '673 modified above, Call '673 teaches sockets having from one side arms that have channel between to fit a lobe extending from a mount and the socket connects to the ends of the telescoping sections 12b and 13d. The channel and connection is the reverse construction of Lynch '001 which has lobes on the scissor unit and a channel on the mount. While the telescoping section of Call '673 is not a scissor unit as required by the claim and taught by Lynch '001, it is still a collapsible structure on a collapsible canopy. A scissor unit and a telescoping unit perform the same function of helping support the structure and canopy while still being able to be collapsible for portability. This is also supported by the fact that the applicant uses in one embodiment a scissor unit (329) in figure 27 to support the apex and in another embodiment a telescoping unit (238) as shown in figure 24 to support the apex. The examiner contends thereby that using the sockets of Call '673 on the end of the scissor unit of Lynch '001 would result in predictable results and the motivation to use such is to make the structure more stable, allow for replaceable arms (socket) which is desirable due to wear or damage, and also the lobe/channel issue is just a mere reversal of parts.

The appellant argues on page 12 of the brief "The Examiner has relied on hindsight to select components from non-analogous structure of Call '673 to combine with Lynch '001 that would otherwise be illogical to combine."

As stated above the examiner contends that the structures of Call' 673 and Lynch '001 are analogous since they perform the same functions on a collapsible canopy, but via different structures. Nevertheless, it is the components (sockets, arms, channels, lobes) that are being combined. Furthermore, while the applicant's structure is used as a road map, the examiner contends that to make the structure more stable and allow for replaceable arms (socket) which is desirable due to wear or damage as stated above and would be obvious to make and available to one of ordinary skill in the art.

Art Unit: 3637

The appellant argues on page 12 of the brief "The Examiner has relied on hindsight to select components from non-analogous structure of Losi '923 to combine with Lynch '001 that would otherwise be illogical to combine."

While the examiner agrees that the Losi '923 does have scissor type linkages, that are the most analogous to the scissor units of the applicants, the examiner contends that a canopy support is also an analogous structure being functional equivalent (i.e. both being collapsible support) and on a collapsible canopy. As shown in figure 7, Losi '923 teaches a fitting that has structure as is substantially claimed. While the fitting is not used to connect a pair of scissor units, it is capable of doing so and Lynch '001 teaches a center fitting that connects a pair of scissor units, though without the structure as claimed. Therefore it would have been obvious to modify the center fitting of Lynch '001 by making it of the configuration as taught by Losi '923 to make it more stable by providing less laterally movement due to the increased surface area of the connections. The applicant appears to be arguing that the entire structures are not combinable and not just changing/modifying fittings as the examiner is doing. The fitting (fig. 7) of Losi '923 is used as a fitting in a roof support structure and would perform the same functions as would be required if used between two scissor units, i.e. provide structural support and allow units to bend relative to each other thereby providing predictable results.

The appellant argues on page 12 of the brief "If one were motivated to combine the references the scissors units of Lynch '001 would simply be connected by a pin or bolt as shown in Losi '923 (see figure 10)."

As stated above the center fitting of Losi '923 has a distinct advantage over a pin or bolt; that being that there is increased stability by providing less laterally movement due to the increased surface area of the connections.

As stated in the rejection and arguments above Lynch '001 in view of Call 673 and Losi '923 provides a combined structure of the collapsible canopy as substantial claimed formed with the motivation and common sense of one of ordinary skill as reasons stated above to provide the predictable results of the combined components.

B. The Examiner's rejection of claim 22 under 35U.S.C § 102(e) as being anticipated by Chiu '074 is improper.

The appellant argues on page 13 "Chiu '074 describes neither a lobe terminating in a rounded end nor arm portions that terminate in rounded arm ends."

Chiu '074 teaches a lobe assembly (52) that is a lobe (54) with a sheath (56). Both the lobe (54) and the sheath (56) terminates in an rounded end. The end is considered rounded since it has rounded corners as clearly seen in figures 3 and 8 and

Art Unit: 3637

labeled as A' in the figure 8 located above and on page 7 of the final office action mailed on 5/10/06.

The appellant argues on page 13 brief "Chiu '074 also fails to teach close fitted-engagement and sliding contact surfaces between the lobe and arm portions."

Chiu '074 teaches a lobe assembly (52) that is a lobe (54) with a sheath (56). While a sheath (56) is between the lobe (54) and the arms (78,76), the sheath is considered an extension of the lobe (54) and hence the fact that there is an element number (52) expressed to the combination. There is nothing in the claim that require the lobe to be a single integrally manufactured element, therefore the lobe assembly (52) is considered to read on the term lobe in claim 22. The lobe assembly (52) with the sheath (56) performs every function that the lobe of the claimed invention does plus has the additional benefit of reducing wear on the metal lobe (54) and friction between the lobe assembly (52) and the arms (78,76).

As stated in the rejection and arguments above Chiu '074 teaches every element as recited in claim 22.

C. The Examiner has failed to established a *prima facie* case of obviousness under 35U.S.C. § 103(a) in rejecting claim 22 as being unpatentable over Lynch '001 in view of Call '673 and Losi '923.

The appellant argues on page 14 of the brief "The combination of Lynch '001 and Call '673 do not teach this recited structure since the fittings of Call (even though they are not scissor fittings) fit within the tubular bars. Also, Losi '923 fails to teach both the mount with lobes and the socket fittings on the upper and lower outer ends of the scissor assemblies."

As stated above and in the office action the socket fittings of Lynch '001 in view of Call '673 do not include a female cavity receiving an end portion of a scissor bar. Losi '923 cures this deficiency with socket fittings (32, 33,34) that have a female cavity to receive the end portion of the bars (3) as seen in figure 2-9, and 11. Again as stated in the response arguments A, the socket fittings are expressly at the same structurally position in the whole canopy structure, but it clearly teaches the concept and it would be common sense for one of ordinary skill in the art to apply this teaching to the appropriate structure in the canopy since such combination would have predictable results. While Losi '923 fails to teach both the mount with lobes and the socket fittings on the upper and lower outer end of the scissor assemblies, Losi '923 is not being used for the teaching, but Lynch '001 in view of Call '673 does teach this.

The appellant seems to be arguing all the references as a whole, which is not what is being rejected. While the invention as whole needs to be considered under 103, the references individually do not need to be considered as whole, but the single combination of the references needs to be considered as a whole. Lynch '001 is used for everything as stated above except those features that are modified by the

Art Unit: 3637

components (not entire structure) and the teachings of Call '673 and Losi '923. As stated in the rejection and arguments above Lynch '001 in view of Call 673 and Losi '923 provides a combined structure of the collapsible canopy as substantial claimed formed with the motivation and common sense of one of ordinary skill as reasons stated above to provide the predictable results of the combined components.

D. The Examiner has failed to established a *prima facie* case of obviousness under 35U.S.C. § 103(a) in rejecting claim 22 as being unpatentable over Lynch '001 in view of Call '673 and Dwek '647.

The appellant argues on page 15 "The combination of Lynch '001 and Call '673 do not teach this recited structure since the fitting of Call (even though they are not scissor fittings) fit within the tubular bars."

This is true, Dwek '647 teaches the reversed socket (22) cavity structure with the tubular bars (20) fitting into a female cavity of the socket as seen in figure 4.

The appellant argues on page 15 "Contrary to the Examiners contention that using the center connector of Dwek '647 would make the frame more simple and easy to use, dowel pint and thumb screws would unnecessarily complicate the assembly of the canopy frame as disclosed by Lynch '001, thereby destroying the advantages of the Lynch '001."

While the thumbscrews of Dwek '647 might make the structure slightly unnecessarily complicated they allow for a greater advantage of additional locking structures making the canopy structure more stable and also if not needed can be removed or left loose.

As stated in the rejection and arguments above Lynch '001 in view of Call 673 and Dwek '647 provides a combined structure of the collapsible canopy as substantial claimed formed with the motivation and common sense of one of ordinary skill as reasons stated above to provide the predictable results of the combined components.

In the general sense applicant's invention is similar to Lynch '001 in all major aspects of functions and design and just has minor connection changes (reversed lobes, sockets, female cavity, rounded lobes, etc.) that are known in Call, Losi, Dwek, or Chui. Such minor changes have advantages, but do change the overall function of any structurally major structural elements (scissor units, mounts, canopy, etc) and each modified component will function in the predictable manner as taught in each reference and is within the common sense and knowledge of one of ordinary skill in the art. Therefore the examiner believes claims 1 and 22 as currently presented are not patentable.

Art Unit: 3637

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Timothy M. Ayres *TMA*

Conferees:

Lanna Mai *LM*

Meredith Petravick *MP*

*JANET M. WILKENS*  
JANET M. WILKENS  
PRIMARY EXAMINER  
*TMW 73637*